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PHALANGIDS FROM BRITISH GUIANA

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Few phalangids have been described from British Guiana, but some indication of the richness of the fauna to be expected can be inferred from the number of species and genera which have been described from the other Guianas. A collection in The American Museum of Natural History contained a number of new species and genera. These collections were mainly the result of a trip by F. E. Lutz and H. E. Crampton in 1911, a few scattered collections by H. Lang and LaVarre, and one specimen picked up by W. Hassler. The writers are indebted to Dr. Lutz for further information on the areas where the collections were made, and to Dr. W. J. Gertsch for permission to examine the collection. All holotypes and paratypes are deposited in the collection of The American Museum of Natural History.

SUBORDER CYPHOPHTHALMI SIMON

SIRONIDAE Simon

Sironinae (Hansen and Soerensen)

SIRULA, NEW GENUS

Siro DAVIS, 1937, Journ. New York Ent. Soc., XLV, p. 133, Pl. I, figs. 1–12.

Anterior margin of carapace with a median protrusion formed by two nearly vertical plates connected dorsally by a transverse ridge. Eyes lacking. Stink gland tubercles approximately as high as their basal diameter, tapering distally, set at a distance very slightly less than their basal diameter from the lateral margin of the carapace. First and second coxae movable. First joint of chelicera laterally compressed. Dorsal surface with a deep depression into which fits the anterior median protrusion of the carapace. Just anterior to this, a transverse ridge. Entire chelicera armed with small hairs and tubercles.

Palpi: trochanter curved dorsally, femur straight, cylindrical. Patella curved slightly ventrad. Tibia nearly straight, tarsi fusiform, straight, terminating in a short straight claw. Entire palpus sparsely covered with hair.

Coxa IV wider than coxa I, coxa I wider than III, III slightly wider than II.

Genital opening elliptical, nearly circular, unarmed.

Maxillary lobe of second coxa wider than long.

First to fourth metatarsi shorter than tarsi. All joints granulated and armed with scattered hairs, which are more numerous on the tarsi. Claw of leg I smooth. Claw of leg II armed on ventral side with five to six small denticles, on posterior side with two tubercles; claw of leg III armed both posteriorly and anteriorly with two tubercles; claw of leg IV strongly curved, armed with two tubercles on the anterior side and two tubercles on the posterior side.

GENOTYPE.—*Sirula kartabo* (Davis).

This form was placed in the genus *Siro* by Davis; however, it is distinct from *Siro* in having lateral teeth on the claws of legs II, III and IV, and ventral teeth on the claw of leg II. It differs from *Parasiro* in having the metatarsi shorter than the tarsi, and is unlike *Holosiro* due to the teeth on the second claw.

Sirula kartabo (Davis)

Siro kartabo DAVIS, 1937, Journ. New York Ent. Soc., XLV, p. 133, Pl. L, figs. 1–12.

TYPE LOCALITY.—Male holotype, female allotype and male paratypes from Kartabo, Bartica District (A. E. Miller, Cornell University Collection).

RECORDS.—Kamakusa, January, 1923, one specimen (H. Lang and LaVarre), and one young example in rain forest near Tukeit, July 26, 1911 (F. E. Lutz).

SUBORDER LANIATORES THORELL

PHALANGODIDAE Simon

Phalangodinae Roewer

ACTINOBUNUS, NEW GENUS

Eye tubercle standing on the anterior margin of the carapace, elevated in the form of a high rounded cone, tipped by a short spine. Five areas distinctly visible on the dorsal scute, first area without a median line, dorsal areas without median spines or tubercles, free tergites likewise without median spines or tubercles, but having a border of spinose tubercles. Tarsal joints: 3–6–5–?. End group of articulations of first leg, 2; of second leg, 3.

GENOTYPE.—*Actinobunus hirsutus*, new species.

This genus is related to *Pachylicus* Roewer but differs in having only six joints in the second tarsus.

Actinobunus hirsutus, new species

Figures 1 and 2

FEMALE.—Total length of body, 2.2 mm. Cephalothorax, 0.7 mm. Width of body at widest point, 1.5 mm.

	I	II	III
Trochanter	0.2 mm.	0.2 mm.	0.2 mm.
Femur	0.7	1.0	0.8
Patella	0.3	0.5	0.4
Tibia	0.5	0.7	0.6
Metatarsus	0.6	1.1	1.0
Tarsus	0.5	1.3	0.8
Total	2.8 mm.	4.8 mm.	3.8 mm.

Body pyriform in shape, rounded posteriorly, eye tubercle as in generic description. Entire dorsum tuberculate and with scattered hair; in a transverse row across each area is a row of tubercles tipped by a long curved hair. The tubercles are low in the first area, hardly discernible, larger in the second, more so in the third, with the fourth and fifth rows almost spinose in character. These rows of spinose tubercles tipped with hairs are present also on the free tergites. On the free tergites they are even more spinose than on the dorsal scute. The spines of the free tergites continue to the area around the anus. The free sternites each with a median row of low tubercles. Venter and coxae tuberculate and armed with scattered hairs. Legs moderately long, armed with irregularly scattered tubercles and a few long hairs. Chelicerae normal.

Color of entire animal reddish brown, appendages slightly lighter.

TYPE LOCALITY.—Female holotype from Kamakusa, October 28, 1922 (H. Lang).

Pseudomitraceras curvatus, new species

Figures 3, 4 and 5

MALE.—Total length of body, 2.1 mm. Cephalothorax, 0.8 mm. Width of body at widest portion, 1.5 mm.

	I	II
Trochanter	0.2 mm.	0.2 mm.
Femur	0.6	0.9
Patella	0.3	0.4
Tibia	0.3	0.7
Metatarsus	0.4	0.9
Tarsus	0.5	1.0
Total	2.3 mm.	4.1 mm.

	III	IV
Trochanter	0.3 mm.	0.5 mm.
Femur	0.6	1.2
Patella	0.3	0.5
Tibia	0.5	0.9
Metatarsus	0.7	1.1
Tarsus	0.4	0.6
Total	2.8 mm.	4.8 mm.

Body pyriform in shape, granulate, dorsum strongly arched and rounded. Eye tubercle on the margin of the cephalothorax, roughly cone-shaped, thickened and extended anteriorly, prolonged dorsally into a sharp point. Dorsum, excluding free tergites, with five areas, no distinct median line on the first area. The boundaries of the areas strongly rounded, first and second areas parallel. Dorsal scutes and free tergites unarmed. Venter armed with scattered hair, area surrounding anus unarmed.

Legs: femur, patella and tibia armed ventrally with spinose tubercles which are extremely large on the fourth leg of the male. Tibia flattened. Tarsal joints: 3–5–5–5. End group of articulations (*Endabschnitt*) of first leg, 2; of second leg, 3.

Palpus: trochanter, 0.1 mm. long; femur, 0.4; patella, 0.3; tibia, 0.3; and tarsus, 0.2. Total length, 1.3 mm. Entire palpus armed with spines ventrally, excluding the patella.

Chelicerae normal.

Color reddish brown with lighter mottlings on the cephalothorax. Appendages yellowish brown, lighter than body.

FEMALE.—Total body length, 2.1 mm. Cephalothorax, 0.6 mm. Width of body at widest portion, 1.5 mm.

Center darker line not so distinct as in males, in fact, practically obliterated in some; other than that, identical in appearance with male.

TYPE LOCALITY.—Male holotype and female allotype and female paratype from rain forest at Tukeit, July 26, 1911 (F. E. Lutz).

This species is related to *Pseudomitra-*

ceras braziliensis Roewer, but differs in the color of the tibia and metatarsi, and in the greater curvature of the boundaries of the dorsal areas.

SPINOLATUM, NEW GENUS

Dorsum of abdomen, exclusive of free tergites with five areas, eye tubercle on the anterior margin of the cephalothorax, projected dorsally into a sharp median spine. The second area of the dorsum with a median sharp curved spine. Third free tergite of the abdomen with a sharp curved median spine. A sharp spine pointing outward on fourth coxae in the region of the second area. Palpi heavy, armed with large spines. Tarsal joints: 4–8–5–6. End group of articulations of first leg, 2; of second leg, 3. Dorsal areas lacking a median line.

GENOTYPE.—*Spinolatum medialis*, new species.

This form is close to *Neoscotolemon* but differs in the spines of the dorsal area, the free tergite and the lateral spines.

Spinolatum medialis, new species

Figures 7 and 8

MALE.—Total length of body, 2.2 mm. Cephalothorax, 0.7 mm. Width of body at widest portion, 1.6 mm.

	I	II
Trochanter	0.2 mm.	0.3 mm.
Femur	0.9	1.8
Patella	0.3	0.6
Tibia	0.8	1.4
Metatarsus	1.3	2.1
Tarsus	0.9	1.8
Total	4.4 mm.	8.0 mm.

	III	IV
Trochanter	0.3 mm.	0.4 mm.
Femur	1.2	2.2
Patella	0.3	0.7
Tibia	0.9	1.8
Metatarsus	1.4	2.2
Tarsus	1.1	1.3
Total	5.2 mm.	8.6 mm.

Dorsum roughly granulate, almost tuberculate on the lateral margin and at the junction of the abdomen and the cephalothorax. Body distinctly pyriform, subtruncate posteriorly. Eye tubercle on the anterior margin of the cephalothorax, prolonged dorsally into a sharp spine which curves slightly anteriorly. A series of six small spinules across the posterior margin of the first area, two on the corresponding position of the second area. Between these two is the large recurved median spine mentioned in the generic description. A series of four spinules on the third area, two on either side of the median line. Six spinules on the fourth area. Fifth area spined with eight spinules. First free tergite armed with seven spinules and hairs. Third free tergite with a long recurved median spine and two smaller spines on either side. Second free tergite with a few small spinules. Posterior lateral margins of the fifth area and the three free tergites prolonged into a spine. A few small spines on the area around the anus, two on the segment dorsal to the anus, three on the ventral segment. A few small spines, three on either side of the segment ventral to the last-mentioned segment. The sides with the large median spine mentioned above, about the region of the second area, and also armed with a number of smaller spines and tubercles. Venter and coxae armed with scattered hair. Legs moderately long, armed with hair and a few tubercles. The fourth leg with heavier tubercles on the femur, patella and tibia. A sharp spine on the posterior margin of the fourth trochanter.

Palpus: trochanter, 0.2 mm. long; femur, 0.5; patella, 0.3; tibia, 0.4; and tarsus, 0.3. Total length, 1.7 mm. Chelicerae normal.

Tarsal joints: 4–8–5–6. End group of articulations of first leg, 2; of second leg, 3.

Color of entire animal reddish brown, appendages somewhat lighter distally.

TYPE LOCALITY.—Male holotype from rain forest at Tukeit, July 26, 1911 (F. E. Lutz).

Tricommatinae Roewer

Globibunus rubrofemoratus Roewer

Globibunus rubrofemoratus ROEWER, 1912, Arch. Naturg., LXXVIII, fasc. 3, p. 166.—ROEWER, 1923, Die Weberknechte der Erde, p. 124, Fig. 129.—MELLO-LEITAO, 1932, Revista du Museu Paulista, XVII, pt. 2, p. 43, Fig. 21.

RECORD.—Minnehaha Creek, September, 1913.

Vima insignis Hirst

Vima insignis HIRST, 1912, Arch. Ann. Nat. Hist., (8) X, p. 66, Pl. I, fig 2.—ROEWER, 1923, Die Weberknechte der Erde, p. 128, Fig. 134.—MELLO-LEITAO, 1932, Revista du Museu Paulista, XVII, pt. 2, p. 43, Fig. 21.

RECORDS.—Tukeit, July 28, 1911 (F. E. Lutz), Rockstone, July, 1911 (F. E. Lutz), between Chenapowu and Saveritik, August, 1911 (F. E. Lutz), and Kamakusa, November 7, 1922 (H. Lang and LaVarre).

COSMETIDAE Simon

Cosmetinae Cambridge

Cynorta vancleavi, new species

Figure 19

MALE.—Total length of body, 4.0 mm. Cephalothorax, 1.3 mm. Width of body at widest portion, 3.4 mm.

	I	II
Trochanter	0.4 mm.	0.4 mm.
Femur	2.9	7.2
Patella	0.9	—
Tibia	2.1	—
Metatarsus	3.6	—
Tarsus	2.1	—
Total	12.0 mm.	—

	III	IV
Trochanter	0.5 mm.	0.5 mm.
Femur	5.4	7.2
Patella	1.1	1.3
Tibia	2.7	3.6
Metatarsus	4.9	6.7
Tarsus	2.7	3.2
Total	17.3 mm.	22.5 mm.

Dorsum finely granulate, eye tubercle normal; a pair of very low tubercles on the first abdominal area, a pair of large acute spines on the third abdominal area; second, fourth and fifth areas and free tergites unarmed. Venter and coxae granulate, armed with scattered hair. Legs armed only with a few hairs, third and fourth legs not larger than the first and second. Tarsal joints: 6–?–8–9. End group of articulations of first and second legs, 3–3. The second joint of the chelicerae elevated in a slight knob above the proximal joint.

Palpus: trochanter, 0.7 mm. long; femur 1.1; patella, 0.4; tibia, 1.1; tarsus, 0.4. Total length, 3.7 mm. Palpus characteristically flattened.

Dorsum reddish brown with a yellowish-white V-shaped marking; a broken, median, yellowish-white line extends just caudad to the spines of the third area where it meets a transverse line extending across the abdomen. The posterior margin of the fourth area is bordered by a broken line extending about one-third of the way across the abdomen. The lateral margins of the second and third areas are bordered by a yellowish-white line, and there are scattered yellow dots on the first three areas. Venter and coxae reddish brown, concolorous with dorsum. Appendages yellowish brown, lighter than dorsum. Spines of the third area concolorous with the dorsum.

TYPE LOCALITY.—Male holotype from Bartica, October 5, 1922 (H. Lang and LaVarre).

This species differs from other known species of this genus by its characteristic color pattern on the dorsum.

Paecilaema lateralis, new species

Figure 6

MALE.—Total length of body, 4.8 mm. Cephalothorax, 1.7 mm. Width of body at widest point, 3.6 mm.

	I	II
Trochanter	0.5 mm.	0.6 mm.
Femur	4.7	11.7
Patella	1.1	1.2
Tibia	3.1	9.2
Metatarsus	4.0	12.6
Tarsus	2.1	6.3
Total	15.5 mm.	41.6 mm.

	III	IV
Trochanter	0.7 mm.	0.7 mm.
Femur	8.3	10.8
Patella	1.3	1.7
Tibia	4.1	6.0
Metatarsus	7.2	10.8
Tarsus	3.4	3.7
Total	25.0 mm.	33.7 mm.

Dorsum finely granulate, eye tubercle normal, wider than long, a pair of tubercles on the first abdominal area and a pair of heavy spines on the third area. Second, fourth and fifth abdominal areas unarmed; free tergites also unarmed. Venter slightly granulate, armed with scattered hair, coxae similarly armed.

Legs long, slender, third and fourth legs not enlarged over first and second. A few spines present at the apex of the fourth femur. Tarsal joints: 7–17–9–10. End group of articulations of first and second legs three in number.

Palpus: trochanter, 0.6 mm. long; femur, 1.5; patella, 1.1; tibia, 1.8; and tarsus, 0.8. Total length, 5.8 mm. Characteristically flattened, armed with scattered hairs, laterally with tubercles.

Chelicerae slightly enlarged but of normal appearance.

Dorsum reddish brown with numerous scattered yellowish-white spots. These spots numerous on the posterior third of the cephalothorax and on the fourth area. A yellow spot is present over each carina of the eye tubercle. The spines of the third area are black, venter and appendages reddish, concolorous with dorsum.

TYPE LOCALITY.—Male holotype and male paratype from Kaietur, July 30, 1911 (F. E. Lutz).

This species resembles most closely *Paecilaema guttatum* Roewer but it lacks the characteristic V marking and the white spots on the free tergites.

Paecilaema lutzi, new species

Figure 11

MALE.—Total length of body, 4.7 mm. Cephalothorax, 1.5 mm. Width of body at widest point, 3.9 mm.

	I	II
Trochanter	0.5 mm.	0.6 mm.
Femur	4.7	10.8
Patella	0.9	1.5
Tibia	2.7	9.0
Metatarsus	4.7	11.7
Tarsus	2.7	6.3
Total	16.2 mm.	39.9 mm.

	III	IV
Trochanter	0.7 mm.	0.9 mm.
Femur	7.4	10.8
Patella	1.3	1.8
Tibia	3.9	6.3
Metatarsus	7.2	9.9
Tarsus	—	4.5
Total	—	34.2 mm.

This species closely resembles *Paecilaema lateralis*, differing only in the color pattern and the number of tarsal joints which are 8–20–?–11. End group of articulations of first and second legs, 3.

Palpus: trochanter, 0.3 mm. long; femur, 1.6; patella, 0.9; tibia, 1.8; and tarsus, 0.4. Total length, 4.0 mm.

The color pattern is as follows: an irregular rounded marking at the posterior margin of the cephalothorax which merges into the irregular median line of the abdomen. The margins of the abdomen and the fourth area have numerous irregular blotches. A yellow dot over each eye; tubercles of the first area concolorous with dorsum.

TYPE LOCALITY.—Male holotype from Tukeit, July 26, 1911 (F. E. Lutz).

Paecilaema reticulata, new species

Figure 12

FEMALE.—Total length of body, 4.0 mm. Cephalothorax, 1.3 mm. Width of body at widest point, 3.4 mm.

	I	II
Trochanter	0.4 mm.	0.4 mm.
Femur	5.5	13.1
Patella	0.9	1.4
Tibia	3.3	9.9
Metatarsus	6.3	14.4
Tarsus	2.7	6.3
Total	19.1 mm.	45.5 mm.

	III	IV
Trochanter	0.6 mm.	0.7 mm.
Femur	8.6	13.5
Patella	1.1	1.6
Tibia	4.5	6.3
Metatarsus	7.2	11.7
Tarsus	4.1	4.1
Total	26.1 mm.	37.9 mm.

Paecilaema reticulata resembles the previously-described species of *Paecilaema*, differing only, but nevertheless distinctly, in the color pattern. The dorsum is reddish brown, the yellowish-white color markings on the dorsum are arranged as follows: a wide V posterior to the eye tubercle. This V punctured by five reddish-brown splotches. The V continuous with three irregular lines on the lateral margin of the dorsum. These lateral lines join a series of broken transverse lines on the fourth and fifth areas. Most anterior of these transverse lines circles around the black spines of the third area and joins a median broken line. The tubercles of the first area are yellowish white, and there is a yellowish dot over each eye. A few faint yellowish markings are present on the lateral anterior margin of the cephalothorax.

Palpus: trochanter, 0.4 mm. long; femur, 1.4; patella, 0.5; tibia, 1.4; and tarsus, 0.3. Total length, 4.0 mm.

Tarsal joints: 7–20–10–10. End group of articulations of first and second legs, 3–3.

TYPE LOCALITY.—Female holotype from heavy jungle near stream, Waratuk, July 15, 1911 (F. E. Lutz).

Paecilaema sexlineata, new species

Figure 9

FEMALE.—Total length of body, 5.0 mm. Cephalothorax, 1.7 mm. Width of body at widest portion, 3.8 mm.

	I	II
Trochanter	0.4 mm.	0.7 mm.
Femur	5.5	12.1
Patella	1.1	1.5
Tibia	3.2	11.5
Metatarsus	6.3	13.5
Tarsus	2.5	5.9
Total	19.0 mm.	45.2 mm.

	III	IV
Trochanter	0.8 mm.	0.8 mm.
Femur	9.0	11.7
Patella	1.6	1.8
Tibia	4.3	6.1
Metatarsus	8.3	13.5
Tarsus	4.1	5.0
Total	28.1 mm.	38.9 mm.

Dorsum smooth, eye tubercle normal, a pair of tubercles on the first abdominal area and a pair of robust spines on the third area. The spines have a very large base, occupying most of the width of the area. The spines themselves taper to a bluntly-rounded point, spines slightly tuberculate at the base. Body truncate caudad, as seen from above, and pyriform in shape. Venter and coxae granulate, armed with scattered hairs. Legs long, armed only with scattered hairs, third and fourth not stouter than

first and second. Tarsal joints: 7–18–9–10. End group of articulations of first and second legs, 3–3.

Palpus: trochanter, 0.4 mm. long; femur, 1.4; patella, 0.7; tibia, 1.6; and tarsus, 0.6. Total length, 4.7 mm.

Dorsum reddish brown, with an irregular yellowish-white pattern, as follows: an irregular lateral pattern roughly forming three rows, a row of three spots in the median line, tubercles yellow also. Spines of the third area dark brown distally. Venter and coxae concolorous with dorsum. Pattern subject to considerable variation. Legs yellowish brown, much lighter. Palpi and chelicerae reddish brown, darker than legs.

MALE.—Total length of body, 4.8 mm. Cephalothorax, 1.6 mm. Width of body at widest point, 3.7 mm.

Identical in appearance with female; chelicerae slightly heavier, legs longer, no secondary sexual characteristics on the fourth leg.

TYPE LOCALITY.—Female holotype from Kaietur, August 3, 1911 (F. E. Lutz). Male and female paratypes from Kaietur, July 30, 1911 (F. E. Lutz), and from Tukeit, July 26, 1911 (F. E. Lutz).

This species differs from the previously described one in having a different color pattern.

Paecilaema triangulata, new species

Figure 10

FEMALE.—Total length of body, 4.4 mm. Cephalothorax, 1.2 mm. Width of body at widest point, 3.3 mm.

	I	II
Trochanter	0.4 mm.	0.5 mm.
Femur	4.1	9.3
Patella	0.6	1.3
Tibia	2.4	6.7
Metatarsus	4.3	10.1
Tarsus	2.0	5.4
Total	13.8 mm.	33.3 mm.
	III	IV
Trochanter	0.6 mm.	0.6 mm.
Femur	6.0	9.0
Patella	1.1	1.3
Tibia	1.9	4.5
Metatarsus	5.5	8.3
Tarsus	3.1	3.6
Total	18.2 mm.	27.3 mm.

This species is identical with *sexlineata* except for the color pattern which differs as follows: tubercles of first area black instead of yellow, distinct V at the posterior margin of the cephalothorax joining with the broken lateral lines. The lines posterior to the spines of the third area are larger and more nearly complete.

Palpus: trochanter, 0.3 mm. long; femur, 0.9; patella, 0.7; tibia, 1.3; tarsus, 0.5. Total length, 3.7 mm.

Tarsal joints: 7–14–9–10. End group of articulations of first and second legs, 3–3.

TYPE LOCALITY.—Female holotype from low jungle at Amatuk, July 14, 1911 (F. E. Lutz).

Paecilaemula lavarrei, new species

Figures 17 and 18

MALE.—Total length, 5.9 mm. Cephalothorax, 2.1 mm. Width of body at widest point, 5.4 mm.

	I	II
Trochanter	0.4 mm.	0.4 mm.
Femur	5.2	10.8
Patella	1.1	1.3
Tibia	3.6	8.3
Metatarsus	5.6	11.5
Tarsus	2.9	7.7
Total	18.8 mm.	40.0 mm.
	III	IV
Trochanter	0.7 mm.	0.9 mm.
Femur	7.7	9.9
Patella	1.5	1.8
Tibia	4.5	6.1
Metatarsus	6.7	9.0
Tarsus	3.6	4.5
Total	24.7 mm.	32.2 mm.

Dorsum finely granulate, eye tubercle longer than wide, shallowly canaliculate with a few very low tubercles over each carina. A heavy pair of spines on the third area, remaining areas and free tergites unbedecked. Venter and coxae granulate and armed with a few scattered hairs, legs armed only with a few hairs. Legs long, third and fourth legs not conspicuously enlarged over first and second. Tarsal articulations 7–15–9–11. End group of articulations of first and second legs, 3–3.

Palpus: trochanter, 0.7 mm. long; femur, 2.3; patella, 0.9; tibia, 2.2; trochanter, 0.7. Total length, 6.8 mm. Palpus characteristically flattened, armed with scattered hair.

Chelicerae enormous, extending far above the surface of the dorsum and so enlarged as to make the palpi appear small and inconspicuous in comparison (see illustration).

Body subtruncate posteriorly as seen from above.

Dorsum reddish brown, much darker on the cephalothorax, eye tubercle concolorous. Yellowish-white markings as follows: an irregular wide V-shaped marking at the junction of the abdomen and cephalothorax, widening out at the lateral margin of the cephalothorax so as to extend anteriorly to the region of the second coxae. A median broken line from the cephalo-

thorax posteriorly to where it joins a transverse narrow line posterior to the spines of the third area. Free tergites darker, about the same color as the cephalothorax. Lateral margins of the abdominal shield also dark. Venter and legs reddish brown, concolorous with dorsum, palpi and chelicerae likewise colored, the chelicerae with mottlings of darker markings.

FEMALE.—Total length of body, 6.1 mm. Cephalothorax, 2.1 mm. Width of body at widest portion, 5.4 mm.

Identical in appearance with male; chelicerae, however, normal in size and legs slightly longer.

TYPE LOCALITY.—Male holotype and female paratypes from Bartica, October, 1922 (H. Lang and LaVarre).

This species differs from other known species of this genus in its color pattern and in the size of the chelicerae. While the males of other described species have somewhat larger chelicerae, none is reported as being enormous and of different shape as they are in this species. In spite of this difference, it is thought best to include this species in the genus *Paecilaemula* since it agrees in every other detail.

GONYLEPTIDAE Sundevall

Cranainae Roewer

Rhopalocranaus robustus, new species

Figure 16

MALE.—Total length of body, 5.7 mm. Cephalothorax, 2.2 mm. Width of body at widest point, 4.1 mm.

	I	II
Trochanter	0.3 mm.	0.6 mm.
Femur	3.6	7.6
Patella	0.9	1.4
Tibia	2.2	6.3
Metatarsus	3.2	6.7
Tarsus	3.6	6.3
Total	13.8 mm.	28.9 mm.

	III	IV
Trochanter	0.9 mm.	0.9 mm.
Femur	5.7	7.6
Patella	1.2	1.3
Tibia	3.2	4.5
Metatarsus	4.9	8.1
Tarsus	3.2	4.0
Total	19.1 mm.	26.4 mm.

Dorsum with four distinct areas, first area with a pair of spines, third area with a pair of very high acute spines. First free tergite with a pair of tubercles, second and third with a median pair of spines. Eye tubercle wider than long, with a spine over each eye. Anterior lateral margin of the cephalothorax with four spinules. Dorsum granulate, with a low tubercle present on the lateral margins of the first three areas, two other low tubercles present in a row on either side of area two. Small tubercle posterior to each large spine of the third area. Free tergites unarmed except for the median tubercles and spines. Venter and coxae armed with scattered hair and tubercles. Legs moderately long, third and fourth legs not heavier than the first and second. Tarsal joints: 6–16–7–7. End group of articulations of first and second legs, 3–3. Basal joints of first tarsi of the male characteristically swollen.

Palpus: trochanter, 0.5 mm. long; femur, 2.0; patella, 0.9; tibia, 1.2; and tarsus, 1.0. Total length, 5.6 mm. Palpus unarmed dorsally; trochanter, femur and patella unarmed; tibia and tarsus armed with long spines ventrolaterally. Two large ones and three small ones on either side of the tibia, and two large ones and two small ones on either side of the tarsus. Chelicerae normal.

Animal dark reddish brown, areas more or less outlined in a darker color, a few darker mottlings on the cephalothorax; venter reddish brown; appendages all reddish brown, lighter; the patella and tibia of the legs, however, somewhat darker.

FEMALE.—Total length of body, 6.7 mm. Cephalothorax, 2.1 mm. Width of body at widest point, 4.1 mm.

Identical with male, except lacking enlarged basal joints of first tarsus.

TYPE LOCALITY.—Male holotype and male and female paratypes from Kamakusa, November 7, 1922 (H. Lang and LaVarre).

This species differs from *Rhopalocranaus marginatus* Roewer, to which it is closely allied, by lacking the white band on the margin of the fourth area. It differs from *R. crulsi* Mello-Leitao in having the anterior margin of the cephalothorax armed.

Rhopalocranaus tuberculatus, new species

Figure 13

MALE.—Total length of body, 5.7 mm. Cephalothorax, 2.1 mm. Width of body at widest portion, 4.1 mm.

	I	II
Trochanter	0.6 mm.	0.9 mm.
Femur	2.9	7.1
Patella	0.8	1.2
Tibia	1.7	4.9
Metatarsus	2.3	5.7
Tarsus	2.6	5.0
Total	10.9 mm.	24.8 mm.

	III	IV
Trochanter	0.9 mm.	0.9 mm.
Femur	5.0	7.2
Patella	1.7	1.7
Tibia	2.7	2.7
Metatarsus	5.0	7.2
Tarsus	2.8	3.0
Total	18.1 mm.	22.7 mm.

Dorsum strongly granulate with the spination of the genus; that is, a pair of small spines on the first area, a pair of very heavy spines on the third area, a pair of tubercles on the first free tergite and a pair of spines on the second and third. In addition to this armature, there are some very heavy and distinct tubercles on the abdomen arranged as follows: on the first area, a tubercle on either side, midway between the spine and the lateral margin, also a series of tubercles around each spine; second area having a series of four tubercles on each side; third area having a tubercle midway between the spine and the lateral margin, a series of tubercles around the base of the spine, and one just posterior to it; a row of tubercles along the posterior margin of the fourth area and also on the posterior margin of each free tergite. Cephalothorax with two tubercles on either side posterior to the eye; eye tubercle with the characteristic spine over each eye, and in addition a series of eight to ten spinose tubercles over each eye, some only slightly smaller than the spines themselves. The anterior lateral margin of the cephalothorax has three spinose projections. Venter and coxae tuberculate and armed with hair. A row of tubercles across each free sternite, legs moderately long and robust, armed with rows of tubercles on the femur, patella and tibia, and armed throughout with scattered hairs.

Tarsal joints: 6–13–7–7. End group of articulations of first and second legs, 3–3.

Palpus: trochanter, 0.8 mm. long; femur, 1.5; patella, 0.8; tibia, 1.3; tarsus, 0.6. Total length, 5.0 mm. Palpus robust, unarmed dorsally; ventrally the tibia is armed with two large and two small spines on either side. The tarsus is likewise armed. Femur armed ventrally only with a row of tubercles, trochanter likewise tuberculate. Chelicerae normal, slightly enlarged.

Color of animal dark reddish brown with mottlings of darker brown on the cephalothorax, on the areas of the abdomen, the base of the spines and the lateral margins. Chelicerae concolorous with dorsum, venter and legs reddish brown, slightly lighter than dorsum. Legs lighter distally. Palpus yellowish, much lighter.

Basal joints of tarsi of first legs characteristically enlarged.

Female.—Total length of the body, 6.0 mm. Cephalothorax, 1.8 mm. Width of body at widest portion, 5.2 mm.

Similar in appearance to male, except lacking the enlarged basal portions of the first tarsi.

Type Locality.—Male holotype and female allotype from Kaietur, August 7, 1911 (F. E. Lutz).

Santinezia magna, new species

Figure 20

Male.—Total length of body, 10.5 mm. Cephalothorax, 4.5 mm. Width of body at widest portion, 10.5 mm.

	I	II
Trochanter	0.8 mm.	2.0 mm.
Femur	9.0	18.0
Patella	3.0	3.0
Tibia	5.0	13.5
Metatarsus	9.0	14.0
Tarsus	4.0	12.0
Total	30.8 mm.	62.5 mm.

	III	IV
Trochanter	2.5 mm.	3.0 mm.
Femur	14.0	20.0
Patella	3.0	4.5
Tibia	8.0	10.0
Metatarsus	13.5	19.0
Tarsus	5.3	7.0
Total	46.3 mm.	63.5 mm.

Dorsum smooth, eye tubercle wider than long, with a large heavy spine over each eye. Anterior margin of the cephalothorax armed with a small median tubercle and two small tubercles on the lateral margin, one being distinctly larger than the other. First area with a pair of tubercles, third area with a pair of long acute spines. Second and fourth areas unarmed. Second free tergite with a pair of spines, third free tergite with a pair of tubercles. Remaining free tergites unarmed. Dorsal scutes expanded in the region of the fourth coxae so as to make an almost oval appearance to the abdomen. Venter and coxae armed with tubercles and scattered hairs. In addition, the large fourth coxae have a spine on each side projecting downward and another large spine on the dorsal posterior margin which projects over the trochanter. Legs long, all armed with hairs and rows of tubercles, which are almost spinous on the femur. In addition the fourth leg of the male is heavily armed as follows: several spines on the trochanter, characteristic rows of spinous tubercles present on the femur, and in addition the apical portion of the femur has some heavy spines. On the outer median margin a large curved spine pointing distally, also several small spines along the junction with the patella. Patella tuberculate, tibia armed with an inner row of acute spines, the proximal one especially large and double curved. The remaining spines becoming progressively smaller until on the distal third they

become mere tubercles. Tarsal joints: 9–23–12–14. End group of articulations of first and second legs, 3–3.

Palpus: trochanter, 2.0 mm. long; femur, 4.1; patella, 2.8; tibia, 3.5; and tarsus, 3.0. Total length, 15.4 mm. Trochanter armed with two spines dorsally and one large and two small spines ventrally. The large curved femur armed dorsally with a row of three large and three small spines and an acute dorsal apical spine, ventrally armed with a row of tubercles; patella armed with a few tubercles dorsally; tibia unarmed dorsally but ventrally armed on either side with two long and two short spines. Tarsus armed ventrally on either side with two long and three short spines. Chelicerae heavy, proximal segment armed dorsally with a few small spines.

Color light reddish brown, somewhat mottled on the cephalothorax and lateral margins with darker mottlings. Posterior margin of the fourth area and of the third free tergite and the lateral margin of the dorsal scute with a clear white line. Appendages concolorous with dorsum, venter also concolorous.

TYPE LOCALITY.—Male holotype from rain forest, Tukeit, July 26, 1911 (F. E. Lutz). Male paratypes from dry forest on a plateau, Kaietur, August 6, 1911 (F. E. Lutz).

Santinezia magna is most closely related to *Santinezia gigantea* (Roewer) but differs in having a more spinose fourth leg and in having the remaining legs tuberculate rather than smooth.

Phareinae Roewer

ACTINOSTYGNOIDES, NEW GENUS

Anterior margin of the cephalothorax without a distinctly elevated area, third area with a middle pair of spines, paired tubercles on the first, second, fourth and fifth areas of the dorsal scute. First three free tergites also bearing paired tubercles. First, second and fourth tarsi more than six-jointed, variable, third tarsus six-jointed. End group of articulations of first and second legs, 3–3.

GENOTYPE.—*Actinostygnoides carus*, new species.

This genus is related to *Stenostygnoides* Roewer but differs in having the areas of the dorsal scute and free tergites armed.

Actinostygnoides carus, new species

Figure 21

FEMALE.—Total length of body, 2.2 mm. Cephalothorax, 0.9 mm. Width of body at widest point, 1.5 mm.

	I	II
Trochanter	0.3 mm.	0.3 mm.
Femur	1.8	2.6
Patella	0.3	0.6
Tibia	1.3	2.1
Metatarsus	2.2	2.7
Tarsus	1.3	2.7
Total	7.2 mm.	11.0 mm.
	III	IV
Trochanter	0.3 mm.	0.4 mm.
Femur	2.1	2.9
Patella	0.5	0.7
Tibia	1.3	1.8
Metatarsus	2.4	3.2
Tarsus	1.5	1.6
Total	8.1 mm.	10.6 mm.

Dorsum finely granulate with five areas clearly visible on the dorsal scute. Each half of the first area roughly triangular in shape and separated by a median line, a pair of low tubercles present on this area. Second area with a pair of median tubercles, each tubercle located about equidistant from the median portion and the lateral border of the area. Third area with a pair of large acute spines and a small low tubercle laterad to the spines. Fourth area with a median pair of tubercles and in addition a tubercle on each side laterad to the median tubercle. Fifth area with a median pair of tubercles and two tubercles on each side, laterad. First free tergite with a median pair of tubercles and in addition a tubercle on either side, laterad. Second free tergite with a median pair of tubercles and an additional one also arranged on either side as on the first free tergite. Third free tergite likewise armed. Cephalothorax arched, lacking eye tubercle so that the eyes are widely separated. While there is no elevated portion on the anterior margin of the cephalothorax, the arching of the area makes a slight curvature on the median line. Low tubercles scattered on the darker markings along the narrow lateral border of the cephalothorax and anterior part of the abdomen and also a few of these same low tubercles on the median anterior portion of the cephalothorax. These tubercles are so low as to appear, without a close examination, to be merely part of the color pattern. Venter, coxae armed with a few scattered hairs. Legs likewise armed with scattered hairs. Tarsal joints: 7–12–6–7. End group of articulations of first and second legs, 3–3. Third and fourth tarsal claws smooth, lacking scopula.

Palpus: trochanter, 0.3 mm. long; femur, 2.1; patella, 1.2; tibia, 1.1; and tarsus, 0.6. Total length, 5.3 mm. Palpus long and slender, femur and patella unarmed, tibia armed ventrally with five long spines on either side and one long spine at the proximal median portion. Tarsus armed on either side with three long spines; dorsally these last two segments are unarmed. Palpal claw long and curved. Chelicerae normal.

Dorsum reddish brown, the dorsal areas, free tergites and lateral margins darker brown so that the areas stand out distinctly, being separated by the lighter patches. Cephalothorax with mottlings of darker brown. In the median portion, these darker areas arranged in a broad line connecting the eyes and extending as two wide lines to the margin of the cephalothorax, separated by a median lighter area. Venter and coxae concolorous, legs yellowish brown, lighter than the dorsum. Palpi and chelicerae concolorous with dorsum.

TYPE LOCALITY.—Female holotype from Kamakusa, November 7, 1922 (H. Lang and LaVarre).

Heterostygninae Roewer

PSEUDOSTYGNOPLUS, NEW GENUS

Animal lacking eye tubercle, four distinct areas on the dorsal scute, a median robust spine on the cephalothorax, a pair of large spines on the third area, a pair of median tubercles on the first area, remaining segments and free tergites lacking median paired tubercles or spines. All tarsal joints more than six, end group of articulations of first and second legs, 3–3. Secondary sexual characteristics of the male on the chelicerae and the fourth legs. Scopula present on distal end of the third and fourth tarsus, double claws toothed.

GENOTYPE. — *Pseudostygnoplus longipalpus*, new species.

This genus differs from *Stygnoplus* Simon by having more than six joints in the first tarsus.

Pseudostygnoplus longipalpus, new species

Figure 22

MALE.—Total length of body, 3.6 mm. Cephalothorax, 1.6 mm. Width of body at widest portion, 3.3 mm.

	I	II
Trochanter	0.4 mm.	0.6 mm.
Femur	3.6	9.0
Patella	0.7	1.2
Tibia	2.2	6.3
Metatarsus	4.2	8.5
Tarsus	2.1	5.4
Total	13.2 mm.	31.0 mm.

	III	IV
Trochanter	0.9 mm.	1.1 mm.
Femur	6.3	8.6
Patella	1.3	1.3
Tibia	3.2	3.6
Metatarsus	5.8	9.9
Tarsus	2.7	3.2
Total	20.2 mm.	27.7 mm.

Dorsum distinctly truncate posteriorly, cephalothorax having a large median spine extending straight above the cephalothorax, animal lacking an eye tubercle. Eyes present on either side of the spine, a small tubercle at the lateral anterior end of the cephalothorax. First area of the abdomen with the characteristic pair of tubercles and in addition on each side another tubercle, slightly laterad and posterior to the tubercle of the area. Second area with three small tubercles on either side. Third area with the long heavy spines and five tubercles arranged in two rows laterad to the heavy spines. Fourth area and free tergites unarmed. Venter and coxae armed with scattered hairs. Legs likewise armed. Third and fourth leg not heavier than the first and second. In the male, the femur of the fourth leg having tubercles and a row of spines on the anterior median margin, increasing in size to the distal end where there are several large spines at the point of junction with the patella. The distal margin of the patella armed with four heavy spines, two dorsal larger than the two ventral. The tibia with a long heavy sharp spine in the center on the median posterior margin. Tarsal joints: 7–16–7–8. End group of articulations of first and second legs, 3–3. Chelicerae enlarged, distal joint increased dorsally so as to be elevated above the proximal joint.

Palpus: trochanter, 0.5 mm. long; femur, 3.6; patella, 1.8; tibia, 1.8; and tarsus, 1.3. Total length, 9.0 mm. Palpus characteristically elongated. Femur and patella unarmed, tibia and tarsus unarmed dorsally, ventrally the tibia is armed with five spines on either side, and the tarsus has three large spines and several smaller ones on either side. Tarsal claw long and curved.

Dorsum reddish brown with darker brown mottlings on the cephalothorax and outlining the areas of the abdomen. A yellow marking on the posterior lateral margin of the fourth area and a few yellowish spots on the posterior lateral margins of the free tergites. Venter and chelicerae concolorous, legs and palpi somewhat lighter.

FEMALE.—Total length of body, 4.5 mm. Cephalothorax, 1.8 mm. Width of body at widest point, 3.6 mm.

Identical in appearance with male, except lacking secondary sexual characteristics of the chelicerae and fourth leg, and with the lateral margins of the dorsum with a narrow yellow line.

TYPE LOCALITY.—Male holotype and female allotype from Kamakusa, February, 1923 (H. Lang).

PHALANGIIDAE Simon

Gagrellinae Thorell

Geaya unicolor Roewer

Geaya unicolor ROEWER, 1910, Abh. Ver. Hamburg, XIX, fasc. 4, p. 161, Pl. III, fig. 30.—

Embrikia unicolor Roewer, 1910, Ent. Rundsch., XXVII, p. 177.—*Geaya unicolor* Roewer, 1923, Die Weberknechte der Erde, p. 1067, Fig. 1167.

Record.—Tumtumtari, July 11, 1911 (F. E. Lutz) and Tukeit, July 24, 1911 (F. E. Lutz).

Geaya vivida, new species

Figure 15

Male.—Total length of body, 4.2 mm. Cephalothorax, 1.3 mm. Femora of legs: I, 8.0 mm.; II, 15.0 mm.; III, 8.0 mm.; IV, 10.0 mm.

Dorsum finely granulate, eye tubercle canaliculate, armed over each carina with a few very small tubercles. Venter and coxae finely granulate; legs armed with very low hairs; second femur with three nodules; first, third and fourth femora without nodules.

Palpus: trochanter, 0.3 mm. long; femur, 0.9; patella, 0.4; tibia, 0.6; and tarsus, 13. Total length, 3.5 mm. Normal in appearance, with an inner spur on the apical part of the patella.

Cephalothorax black, with granulations of yellow which coalesce to form two spots on the lateral margin, and an anterior median spot. Two prominent supracheliceral lamellae are likewise yellow. Eye tubercle yellow, contrasting. Anterior two-thirds of abdomen bright yellow, margined with black, with a wide black spot in the region of the fourth coxae and small median spots in the first and second segment. Posterior third of the abdomen mainly black. Free sternites mottled black and yellow, coxae with dark and light granulations so as to give a reddish-brown effect. Trochanters concolorous, bases of femora black, remainder of leg dark brown. Palpi yellow.

Female.—Similar in appearance to male but with more black on the dorsal scute.

Type Locality.—Male holotype and female paratype from dry forest at Kaietur, August 10, 1911 (F. E. Lutz).

This species shows some affinities to *Geaya aenescens* Roewer but differs distinctly in color markings and eye armature.

Prionostemma pulchra, new species

Figure 14

Male.—Total length of body, 3.7 mm. Cephalothorax, 1.2 mm. Femora of legs: I, 13.0 mm.; II, 20.0 mm.; III, 11.0 mm.; IV, 14.0 mm.

Dorsum granulate; venter, coxae and genital operculum likewise granulate. Rows of teeth along fore and hind margins of coxae, eye tubercle as high as wide as long, canaliculate, with a row of six to eight small teeth above each carina. Legs long and slender, armed with rows of fine hairs. Nodules numbering three on the second leg, one on the fourth.

Palpus: trochanter, 0.3 mm. long; femur, 1.2; patella, 0.4; tibia, 0.6; and tarsus, 1.3. Total length, 3.8 mm. Normal in appearance, patella curved, armed with scattered hairs, small spur present.

Dorsum golden yellow, with darker flecks on the lateral margins of the dorsal scute, a dark penciling line on the posterior margin. Eye tubercle black, a darker spot just posterior to the eye tubercle and a dark line anterior to the eye tubercle extending to the anterior margin. First free tergite margined black, remaining free tergites black, free sternites likewise black, contrasting with the membranes separating them. Genital operculum dark brown, with darker flecks on the lateral margin, coxae black, strongly contrasting with the dorsum. Trochanters and base of femora likewise black, remainder of legs dark brown. Chelicerae brownish. Trochanter, femur, patella and proximal part of tibia of palpus dark brown, distal portion of tibia lighter, tarsus yellowish.

Type Locality.—Male holotype from upper Essequibo River, in Onoro region, December 20, 1937 (W. G. Hassler).

This species differs from *Prionostemma* species in its color pattern. It shows some affinities to *Prionostemma circulatum* Roewer but does not have the black dots of the dorsal area or the distinct circles. *P. pulchra* also has the proximal portion of the pedipalpi dark, not concolorous as in *circulatum*.

Prionostemma reticulatum Roewer

Prionostemma reticulatum Roewer, 1910, Abh. Ver. Hamburg, XIX, fasc. 4, p. 182.—Roewer, 1923, Die Weberknechte der Erde, p. 1082, Fig. 1195.

Records.—Tumtumtari, July 11 and July 21, 1911, and August 22, 1911 (F. E. Lutz), Kaietur, August 3, 1911 (F. E. Lutz), and Tukeit, July 19, 1911 (F. E. Lutz).

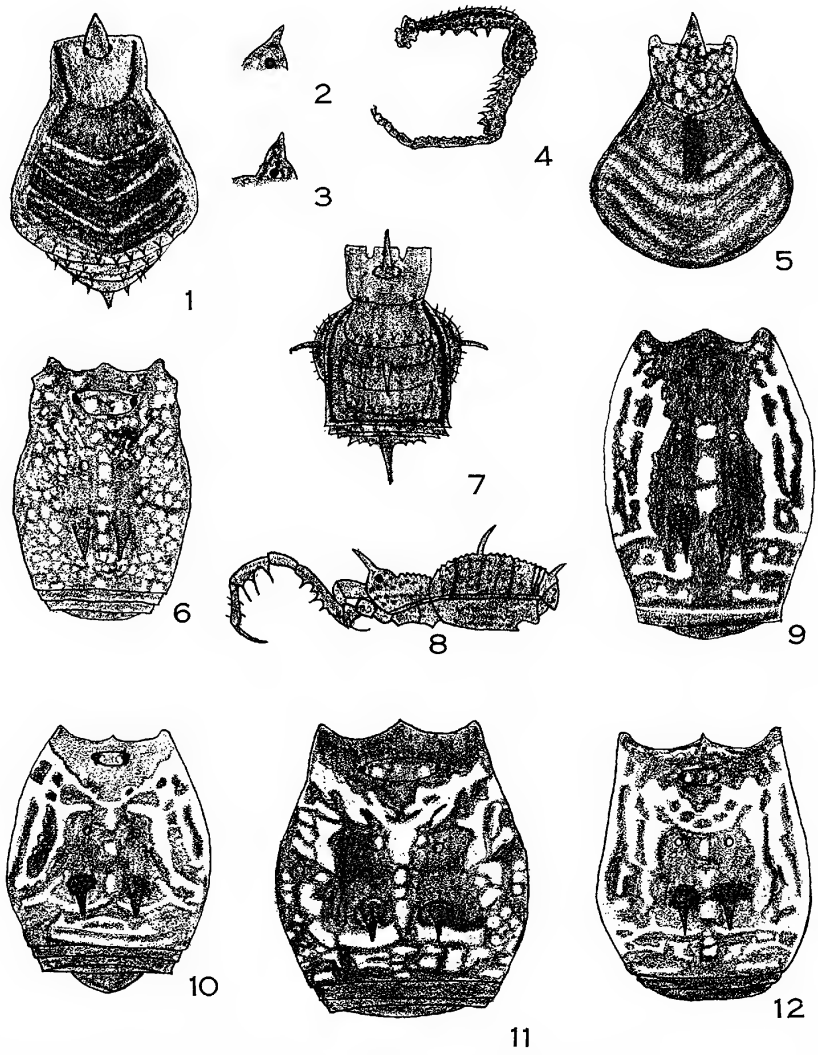

Fig. 1. *Actinobunus hirsutus*, new species, dorsal view of female.
Fig. 2. Idem, lateral view of eye tubercle of female.
Fig. 3. *Pseudomitraceras curvatus*, new species, lateral view of eye tubercle of male.
Fig. 4. Idem, lateral view of fourth leg of male.
Fig. 5. Idem, dorsal view of male.
Fig. 6. *Paecilaema lateralis*, new species, dorsal view of male.
Fig. 7. *Spinolatum medialis*, new species, dorsal view of male.
Fig. 8. Idem, lateral view of male.
Fig. 9. *Paecilaema sexlineata*, new species, dorsal view of female.
Fig. 10. *Paecilaema triangulata*, new species, dorsal view of female.
Fig. 11. *Paecilaema lutzi*, new species, dorsal view of male.
Fig. 12. *Paecilaema reticulata*, new species, dorsal view of female.

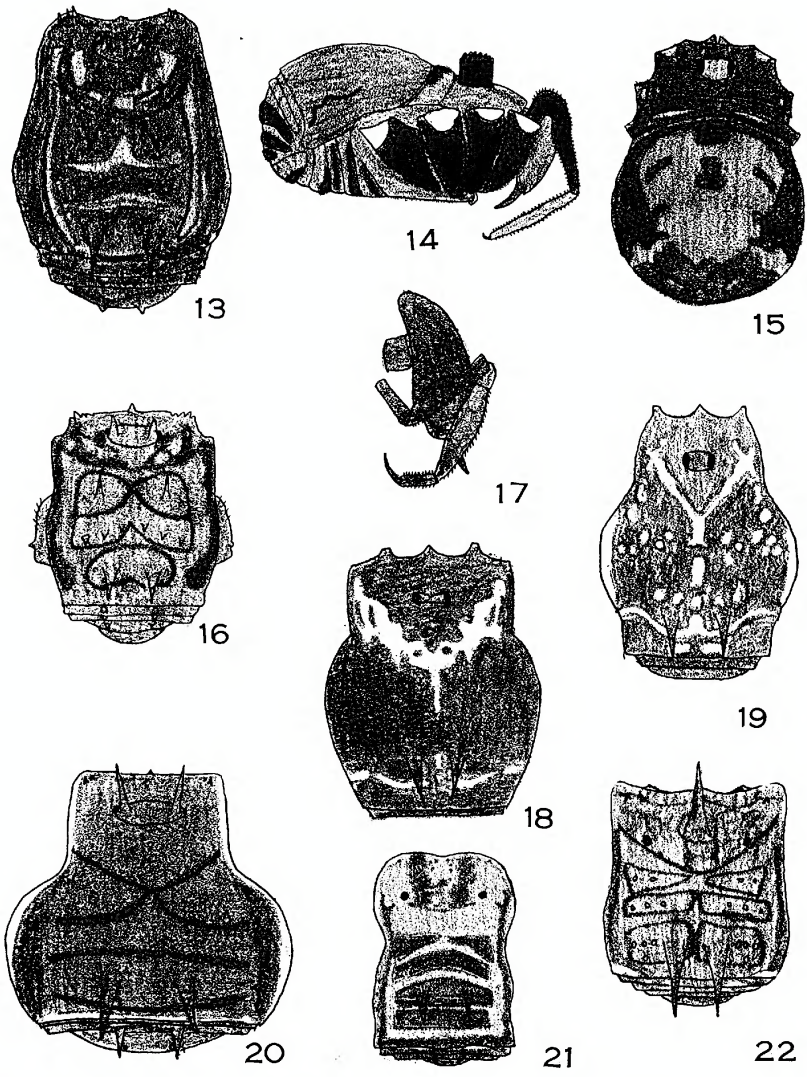

Fig. 13. *Rhopalocranaus tuberculatus*, new species, dorsal view of male.
Fig. 14. *Prionostemma pulchra*, new species, lateral view of male.
Fig. 15. *Geaya vivida*, new species, dorsal view of male.
Fig. 16. *Rhopalocranaus robustus*, new species, dorsal view of male.
Fig. 17. *Paecilaemula lavarrei*, new species, lateral view of left palpus and chelicera of male.
Fig. 18. Idem, dorsal view of male.
Fig. 19. *Cynorta vancleavi*, new species, dorsal view of male.
Fig. 20. *Santinezia magna*, new species, dorsal view of male.
Fig. 21. *Actinostygnoides carus*, new species, dorsal view of female.
Fig. 22. *Pseudostygnoplus longipalpus*, new species, dorsal view of male.